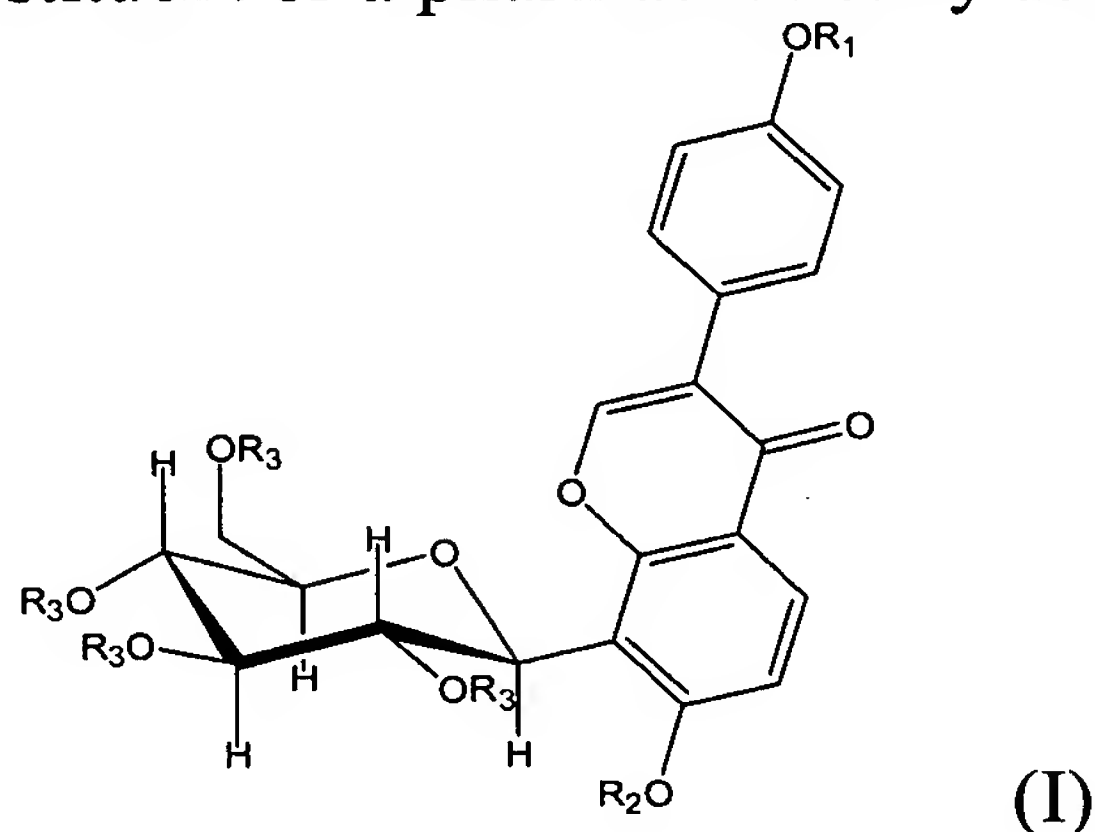


WHAT IS CLAIMED IS:

1. A C-Glycosylisoflavone compound of the formula (I) having alkylaminoalkoxyl substituent or a pharmaceutically acceptable salt thereof:



wherein, R_1 and R_2 are independently selected from hydrogen, (C_1-C_{12}) linear or branched alkylamino, mono- or di- (C_3-8) cycloalkylamino- C_{1-6} alkyl, or (C_5-C_{14}) heterocyclic- (C_1-C_6) alkyl; R_3 is selected from hydrogen, (C_1-C_{12}) linear or branched acyl, or C_{6-14} aryl carbonyl; wherein R_1 and R_2 do not represent hydrogen simultaneously; the 1-position of D-glucosyl is connected with the 8-position of the isoflavone in a form of β -configured C-glycoside.

2. The compound according to claim 1, characterized in that in formula (2), R_1 and R_2 are independently selected from hydrogen, dimethylaminoethyl, diethylaminoethyl, di(n-propyl)aminoethyl, di(iso-propyl)aminoethyl, di(n-butyl)aminoethyl, di(iso-butyl)aminoethyl, di(tert-butyl)aminoethyl, pyrrolidinyethyl, piperidylethyl, morpholinylethyl, piperazinylethyl, N-methylpiperazinylethyl, N-ethylpiperazinylethyl, tert-butylaminoethyl, dicyclohexylaminoethyl, dimethylaminopropyl, diethylaminopropyl, di(n-propyl)aminopropyl, di(iso-propyl)aminopropyl, di(n-butyl)aminopropyl, di(iso-butyl)aminopropyl, di(tert-butyl)aminopropyl, pyrrolidinylpropyl, piperidylpropyl, morpholinylpropyl, piperazinylpropyl, N-methylpiperazinylpropyl, N-ethylpiperazinylpropyl, tert-butylaminopropyl,

dicyclohexylaminopropyl, dimethylaminobutyl, diethylaminobutyl, di(n-propyl)aminobutyl, di(iso-propyl)aminobutyl, di(n-butyl)aminobutyl, di(iso-butyl)aminobutyl, di(tert-butyl)aminobutyl, pyrrolidinylbutyl, piperidylbutyl, morpholinylbutyl, piperazinylbutyl, N-methylpiperazinylbutyl, N-ethylpiperazinylbutyl, tert-butylaminobutyl, dicyclohexylaminobutyl, wherein R_1 and R_2 do not represent hydrogen simultaneously; R_3 is selected from hydrogen, propionyl, butyryl, isobutyryl, 2-methylbutyryl, 3-methylbutyryl, 2,2-dimethylpropionyl, valeryl, caproyl, heptanoyl, octanoyl, nonanoyl, decanoyl, lauroyl; or a pharmaceutically acceptable salt selected from the salts of hydrochloric acid, hydrobromic acid, phosphoric acid, phosphorous acid, sulfuric acid, methane sulfonic acid, p-toluene sulfonic acid, maleic acid, fumaric acid, tartaric acid, and various natural or non-natural amino acids.

3. The compound according to claim 1 or 2, wherein the compound of the formula (I) is selected from:

4'-(3-N-piperidylpropoxy)-7-hydroxy-8- β -D-(1-deoxyglucosyl)isoflavone,
4'-(3-N-morpholinylpropoxy)-7-hydroxy-8- β -D-(1-deoxyglucosyl)isoflavone,
4'-(3-N-pyrrolidinylpropoxy)-7-hydroxy-8- β -D-(1-deoxyglucosyl)isoflavone,
4'-(3-diethylaminopropoxy)-7-hydroxy-8- β -D-(1-deoxyglucosyl)isoflavone,
4'-[3-di(n-propyl)aminopropoxy]-7-hydroxy-8- β -D-(1-deoxyglucosyl)isoflavone,
4'-[3-di(n-butyl)aminopropoxy]-7-hydroxy-8- β -D-(1-deoxyglucosyl)isoflavone,
4'-[3-(4-methylpiperazinyl)propoxy]-7-hydroxy-8- β -D-(1-deoxyglucosyl)isoflavone,
4'-[3-(4-ethylpiperazinyl)propoxy]-7-hydroxy-8- β -D-(1-deoxyglucosyl)isoflavone,
4'-(4-N-piperidylbutoxy)-7-hydroxy-8- β -D-(1-deoxyglucosyl)isoflavone,

4'-(4-N-morpholinylbutoxy)-7-hydroxy-8- β -D-(1-deoxyglucosyl)isoflavone,
 4'-(4-N-pyrrolidinylbutoxy)-7-hydroxy-8- β -D-(1-deoxyglucosyl)isoflavone,
 4'-(4-diethylaminobutoxy)-7-hydroxy-8- β -D-(1-deoxyglucosyl)isoflavone,
 4'-(4-di(n-propyl)aminobutoxy)-7-hydroxy-8- β -D-(1-deoxyglucosyl)-
 isoflavone,
 4'-(4-di(n-butyl)aminobutoxy)-7-hydroxy-8- β -D-(1-deoxyglucosyl)
 isoflavone,
 4'-[4-(4-methylpiperazinyl)butoxy]-7-hydroxy-8- β -D-(1-deoxyglucosyl)
 isoflavone,
 4'-[4-(4-ethylpiperazinyl)butoxy]-7-hydroxy-8- β -D-(1-deoxyglucosyl)
 isoflavone,
 or a pharmaceutically acceptable salt thereof.

4. A pharmaceutical composition comprising a compound of any one of claims 1 to 3 and a pharmaceutically acceptable carrier.

5. A preparation method of a compound of any one of claims 1 to 3, characterized in comprising, reacting puerarin material with a suitable bis-functional group substituted compound such as a bihalogenated hydrocarbon, an alkylene bissulfonate, or a halogenated hydrocarbon monosulfonate etc., in a suitable solvent selected from water, acetone, dimethylformamide, dimethyl sulfoxide, and lower alcohols, under the presence of a base, an ambient to reflux- temperature, which is firstly mono-etherified followed by amination and/or salt-formation, to give the corresponding alkylaminoalkoxyl-substituted C-Glycosylisoflavone compound or a pharmaceutically acceptable salt thereof.

6. Use of a compound of any one of claims 1 to 3 in the manufacture of a

medicament for the treatment of cardio- and cerebrovascular diseases as well as a medicament for the treatment of hypoxia or ischemia.

7. Use of a compound of any one of claims 1 to 3 in the manufacture of a medicament for the treatment of diabetes as well as diabetic complications.

8. Use of a compound of any one of claims 1 to 3 in the manufacture of a medicament for the treatment of chemical poisoning, particularly alcoholism.